Department of Geneticsm, University of Wisconsin
Madison 6, Wis.

Dec. 13, 1951

Dear Dr. Spicer:

Thank you for your good letter of the 30th, and for the serum samples, which arrived yesterday, apparently in excellent condition.

Our group discussed the details you gave of your potsdam x typhimurium experiments, but, like yourself we cannot offer any simple explanation of the partial fermentative changes. Have you tested the reactions on agar, to determine whether the delayed fermentations are slow or "mutative"?

We were especially interested in your report for two reasons. Firstly, the transductions observed in our experience have all involved XII-carrying types, although we have not explicitly tested potsdam. Second, in the typhimurium system, the "recombinations" have always involved just one character at a time-- a point that was quite perplexing when we were looking for security by using diauxotrophs in crossing attempts. The segregation for trehalose would be something quite new.

We hope to extend these studies more generally to the Salmonella group; at the moment, we are spending all our (i.e., Mr. Zinder and his share of my) time on writing up the current work, and cleaning up the inevitable loose ends. I should appreciate the opportunity of discussing findings of mutual interest as they come up.

I should be interested to learn how you set up the dual-resistance selection for recombinants: we were able to do this with E. coli, but not very satisfactorily, especially from the point of view of a sound demonstration in a new organism. Streptomycin is an excellent selective agent (better for E. coli than Salmonella) but we had no other to use as its complement.

As I mentioned, this work is being written up for publication only now, although it is included in the proceedings of the last Cold Spring Harbor symposium, now in press. The enclosed abstract gives pretty well the whole story to date, albeit skimpily. Dr. Kliene[illegible]ger-Nobel at the Lister Institute has a microprint of this section of the C.S.H.Symp. MS, which you might ask to see if you want some more of the background information.

Sincerely,

Joshua Lederberg